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10/825,583	04/15/2004	Joachim Schmidt	2133.034USU	8182

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EXAMINER
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LAFORGIA, CHRISTIAN A

ART UNIT	PAPER NUMBER
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2439

MAIL DATE	DELIVERY MODE
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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/825,583	<b>Applicant(s)</b> SCHMIDT, JOACHIM	
	<b>Examiner</b> Christian LaForgia	<b>Art Unit</b> 2439	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 17 May 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 and 23-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 and 23-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. The amendment of 17 May 2010 has been noted and made of record.
2. Claims 1-20 and 23-27 have been presented for examination.
3. Claims 21 and 22 have been cancelled as per Applicant's amendment.

### ***Response to Arguments***

4. Applicant's arguments filed 17 May 2010 have been fully considered but they are not persuasive.
5. The applicant argues that "based solely on all the security-relevant data of the first data packet" requires that for each packet containing user data, there is exactly one packet allocated that contains the respective redundant information. In response to applicant's argument that the references fail to these features of applicant's invention, it is noted that the features upon which applicant relies are not recited in the rejected claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Claim language specifying that the second packet only contains redundant information pertaining to the first data packet appears to help distinguish over the Katsavounidis reference.
6. However, such claim language raises other issues. Applicant's figure 3, which has been defined in the specification at page 2, lines 19-29 and page 7, lines 14-16 as defining the current state of the art for security-oriented messages (which the Examiner interprets as labeling figure 3 as prior art), shows a security-oriented message comprising two data packets. Figure 3 shows the strong 1:1 relationship between the redundant information and the security-relevant information that the Applicant argues is not present in the applied prior art.

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6. See further rejections set forth below.

***Claim Rejections - 35 USC § 101***

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 24-27 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. While the claims recite a series of steps or acts to be performed, one test for determining whether they constitute a statutory “process” under 35 U.S.C. 101 is to determine if the steps or acts to be performed (1) are tied to a particular machine, or (2) transform underlying subject matter (such as an article or material) to a different state or thing. *In Re Bilski*, 545 F.3d 943, 954 (Fed. Cir. 2008), *aff’d* 561 U.S. \_\_\_\_ (2010). The instant claims are neither positively tied to a particular machine that accomplishes the claimed method steps nor transform underlying subject matter, and therefore do not qualify as a statutory process. The method steps are broad enough that the claim could be completely performed mentally, verbally or without a machine nor is any transformation apparent.

***Claim Rejections - 35 USC § 102***

9. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

10. Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application Publication No. 2003/0053454 A1 to Katsavounidis et al., hereinafter Katsavounidis.

11. As per claim 1, Katsavounidis teaches a process for the packet-oriented transmission of data under application of at least one security-oriented message consisting of a first data packet

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and an allocated second data packet at least one transmission system with a parallel and/or serial network and/or bus system with at least one user connected to it, the process, comprising:

transmitting the security-relevant data (paragraphs 0017, 0035, i.e. transmission of video information comprising user data identifier codes) and redundant information based on all the security-relevant data within the at least one security-oriented message (paragraphs 0016-0017, Figure 3 of Applicant's specification shows that a security oriented message is any type of message containing at two related packets. Katsavounidis discloses sending a first packet and a second packet that are related in that the second packet contains FEC bits related to the first data packet. One of ordinary skill in the art would recognize that forward error correction is a technique of error control for data transmission, whereby the sender adds redundant data to its messages);

wherein, for each security-oriented message, the security-relevant data is transmitted in the first data packet and the redundant information, based solely on all the security-relevant data of the first data packet, is transmitted in the allocated second data packet of the at least one security-oriented message (paragraphs 0016, 0017, 0018, i.e. transmitting the forward error correction bits in a separate packet).

12. Regarding claim 2, Katsavounidis teaches that the redundant information is encoded (Figure 1B [block 106B], paragraphs 0037, 0040).

13. Regarding claim 3, Katsavounidis teaches that the redundant information is a check sum (CRC) calculated over the data (paragraphs 0016-0017, i.e. using forward error correction; one

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of ordinary skill in the art would recognize that forward error correction includes the use of a checksum).

14. Regarding claim 4, Katsavounidis teaches that the security-relevant data is selected from the group consisting of user data (paragraph 0017, user data identifier codes), check data, and control.

15. Regarding claim 5, Katsavounidis teaches transmitting several packets within a predefined (superset) frame structure (Abstract, paragraph 0017-19, i.e. plurality of frame packets).

16. With regards to claim 6, Katsavounidis teaches wherein the packets within a predefined (superset) frame structure include the security-relevant data and the redundant information that are allocated to each other (paragraph 0017-19).

17. Concerning claim 7, Katsavounidis teaches wherein the packets with the security-relevant data and the redundant information that are allocated to each other are transmitted in a parallel or serial way (Figure 1A [element 120], paragraph 0037, i.e. communication networks can communicate both in parallel and serially).

18. Concerning claim 8, Katsavounidis teaches wherein the packets with the security-relevant data and the redundant information that are allocated to each other are transmitted in strings or

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separately (paragraphs 0017, 0018, i.e. transmitting the forward error correction bits in a separate packet).

19. Regarding claim 9, Katsavounidis teaches wherein the packets include an addressing block and/or an identification code for their logical allocation (paragraph 0016, i.e. packet header information includes address information).

20. As per claims 10, Katsavounidis teaches a device for a transmission system with at least one parallel and/or serial network and/or bus system, for the packet-oriented transmission of security-relevant data under application of at least one security-oriented message consisting of a first data packet and an allocated second data packet the device comprising:

means, arranged on the side of the sender, for the packet-oriented embedding of the security-relevant data into the first data packet (paragraphs 0017, 0035, i.e. transmission of video information comprising user data identifier codes) and for the packet-oriented embedding of each allocated redundant information, based solely on all the security relevant data of the first data packet, into the allocated second data packet of the security-oriented message (paragraphs 0017, 0018, i.e. transmitting the forward error correction bits in a separate packet).

21. Regarding claim 11, Katsavounidis teaches an encoding device for the encoding of the redundant information (Figure 1B [block 106B], paragraphs 0037, 0040).

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22. Regarding claim 12, Katsavounidis teaches wherein the means for embedding are allocated means for the generation of the redundant information with the same number of bits (n) as the security-relevant data to be transmitted (paragraphs 0016-0017, i.e. using forward error correction).

23. Regarding claim 13, Katsavounidis teaches wherein the means for the generation and/or embedding are designed such that any possible combination of the security-oriented data of a packet unambiguously results in exactly one of the possible combinations within the packet having the respective allocated redundant information (paragraphs 0017, 0018, i.e. forward error correction).

24. Regarding claim 14, Katsavounidis teaches means arranged on the side of the receiver for the verification of an error-free data transmission based solely on all the security-relevant data embedded in at least one packet and the allocated redundant information, wherein each redundant information based solely on all the security relevant data of a respective on packet is embedded in a separate packet (paragraphs 0020, 0021, 0037, 0038, i.e. decoding the received data).

25. With regards to claim 15, Katsavounidis teaches wherein the means for the verification are allocated means for reading out and allocating data and allocated redundant information received in different packets (paragraphs 0020, 0021, 0037, 0038).



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26. Regarding claim 16, Katsavounidis teaches wherein several packets with the security-relevant data and/or the allocated redundant information are capable of being transmitted within a predefined (superset) frame structure (Abstract, paragraph 0017-19, i.e. plurality of frame packets).

27. Regarding claim 17, Katsavounidis teaches means for the packet-oriented embedding and readout of addressing blocks and/or identification codes for the logical allocation of individual packets and/or their contents to each other (paragraph 0016, i.e. packet header information includes address information).

28. Regarding claim 18, Katsavounidis teaches means are allocated to slave devices and/or a master device (paragraph 0038).

29. As per claim 19, Katsavounidis teaches a transmission system comprising:  
at least one parallel and/or serial network and/or bus system (Figure 1A [element 120], paragraph 0037); and  
at least one device according to claim 10 (see rejection of claim 10 above).

30. Regarding claim 20, Katsavounidis teaches wherein the network and/or bus system is at least one ring-, line-, star- and/or tree-shaped network and/or bus structure (Figure 1A [element 120], paragraph 0037).

***Claim Rejections - 35 USC § 103***

31. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

32. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Katsavounidis in view of U.S. Patent No. 2003/0200323 A1 to Dold et al., hereinafter Dold.

33. Regarding claim 23, Katsavounidis does not teach wherein the at least one parallel and/or serial network and/or bus system comprises an Interbus system.

34. Dold teaches that Interbus is interchangeable with bus protocols such as CAN, Profibus, Ethernet, ASI, DeviceNet or CANopen (paragraph 0013, claim 2).

35. It would have been obvious to one of ordinary skill in the art at the time the invention was made to interchange Interbus with one of the communication protocols discussed in Katsavounidis, since one of ordinary skill in the art would recognize that switching out the communication protocol would yield predictable results, especially since the prior art shows that they are interchangeable. See *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385, 1395 (2007).

36. Claims 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art, hereinafter AAPA, in view of Katsavounidis.

37. As per claim 24, AAPA teaches a process for the packet-oriented transmission of security-relevant data under application of at least one transmission system with a parallel and/or serial network and/or bus system with at least one user connected to it, comprising:

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forming at least one security-oriented message from two partial messages, the two partial messages including a first data packet and a second data packet (Figure 3, page 2, lines 19-29 and page 7, lines 14-16 of the instant specification).

38. AAPA does not teach transmitting the first data packet, the first data packet having user data and check data, the first data packet totaling a first number of bits and transmitting the second data packet, the second data packet having a check sum value calculated over the user data and the check data, the second data packet totaling a second number of bits that is equal to the first number of bits.

39. Katsavounidis teaches transmitting the first data packet, the first data packet having user data and check data, the first data packet totaling a first number of bits (paragraphs 0017, 0035); and

transmitting the second data packet, the second data packet having a check sum value calculated over the user data and the check data, the second data packet totaling a second number of bits that is equal to the first number of bits (paragraphs 0016-0017).

40. It would have been obvious to one of ordinary skill in the art at the time the invention was made to transmit the first and second data packet, since Katsavounidis states at paragraph 0016 that using FEC information greatly enhances error resiliency, providing for smoother transmission of data over communication networks.

41. Regarding claim 25, Katsavounidis teaches combining and jointly transmitting the first and second data packets within a frame structure (paragraphs 0016, 0017).

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42. Regarding claim 26, AAPA teaches transmitting the first and second data packets within different frame structures (Figure 3, page 2, lines 19-29).

43. Regarding claim 27, Katsavounidis teaches wherein the steps of transmitting the first and second data packets comprise separately transmitting the first and second data packets (paragraphs 0016, 0017).

### ***Conclusion***

44. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

45. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

46. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christian LaForgia whose telephone number is (571)272-3792. The examiner can normally be reached on Monday thru Thursday 7-5.

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47. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on (571) 272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

48. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Christian LaForgia/  
Primary Examiner, Art Unit 2439

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